BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2008-0273
	)	
Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs.	)	
	)	
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THE SOLAR ALLIANCE'S AND HAWAII SOLAR ENERGY ASSOCIATION'S RESPONSES TO THE SECOND SET OF INFORMATION REQUESTS FROM THE COMMISSION'S CONSULTANT, THE NATIONAL REGULATORY RESEARCH INSTITUTE

AND

CERTIFICATE OF SERVICE

RILEY SAITO
73-1294 Awakea Street
Kailua-Kona, HI 96740
Telephone No.: (808) 895-0646

for The Solar Alliance

MARK DUDA
HAWAII SOLAR ENERGY ASSOCIATION
PRESIDENT
PO Box 37070
Honolulu, HI 96837
Telephone No.: (808) 735-1467

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Pursuant to the Commission's Letter to the Parties, dated March 16, 2009, The Solar Alliance and Hawaii Solar Energy Association hereby submit the following Responses to The Second Set of Information Requests from the Commission's consultant, the National Regulatory Research Institute.

Respectfully submitted.

DATED: Honolulu, Hawaii, March 30, 2009

MARK DUDA
PRESIDENT
HAWAII SOLAR ENERGY ASSOCIATION

Respectfully submitted.

DATED: Honolulu, Hawaii, March 30, 2009.

RILEY SAITO

for The Solar Alliance

II. IRs to the Solar Alliance and the Hawaii Solar Energy Association

1. Why is 15% the appropriate feeder penetration limit? Please provide all supporting documentation and calculations

RESPONSE: SA/HSEA's proposal that penetration levels be set at 15% is based on the fact that the HECO Companies committed to this level in the Energy Agreement that they signed with the State in October of 2008. The specific language of the Agreement (Section 19, p. 28) is as follows (emphasis added using bold text):

> • Distributed generation interconnection will be limited on a per-circuit basis, where generation (including PV, micro wind, internal combustion engines, and net metered generation) feeding into the circuit shall be limited to no more than **15% of peak circuit demand for all distribution-level circuits of 12kV or lower;**

SA/HSEA do not necessarily agree that 15% should serve as an upper limit on per-circuit distributed generation. However, both organizations believe that the fact that the HECO Companies agreed to this level indicates that such levels will not engender reliability or stability problems, and would therefore constitute a reasonable place to begin.

In answering this question, SA/HSEA would like to emphasize that the proposal here, as derived from the Energy Agreement, is for 15% of peak circuit demand of all distribution level circuits of 12 kV or lower. In the HECO Companies' activities, "distribution level circuits" have not always been defined as being equivalent to "feeder distribution" for purposes of determining the need for an IRS. For this purpose, at least HELCO has defined "utility feeder" as the line running from the substation to a set of customers.

This more restrictive definition may or may not be different from the Commission's intention where it defines "feeder penetration" in Rule 14, Appendix I, Section 2, General Interconnection Guidelines, (d) Utility Feeder Guidelines.

In any case, SA/HSEA note that there is no publically available information regarding the configuration of circuits or "feeder circuits," however defined, and that this makes it impossible to know the penetration of a given feeder in advance of the proposal for a specific project. This lack of transparency has substantial marketplace

impacts as the time frame to complete an IRS is unknown and can not only delay completion but shift placed-in-service dates into subsequent tax years, which undermines project funding given the federal tax incentives support for PV projects.

2. **Is 0.77 an accurate DC to AC derate factor for solar PV technology in Hawaii? If not, what is the appropriate derate factor?**

RESPONSE: The 0.77 derate is a middle of the road multiplier that takes into account the many factors that influence module performance. Such factor may raise or low performance and include, but are not limited to, the following: sun zone (*i.e.*, solar insolation at the site); north /south orientation; ambient temperature; presence of wind; degree of tilting of the panels; and the specific inverter installed.

3. **What is the degradation factor for solar PV systems in Hawaii? Please provide the basis for this estimate.**

RESPONSE: .5% per year on the average. The degradation factor is based on actual PV system performance over the past 10+ years worldwide. Further details would infringe on client/developer confidential information.

VII. IRs to Blue Planet Foundation and other parties contributing to the Schedule FiT

1. **Please provide all documentation, calculations, and other analysis supporting the specific rates proposed on pages 4-9 of the Schedule FiT attached to Blue Planet's Opening Statement.**

Response:

The Solar Alliance ("SA") and Hawaii Solar Energy Association ("HSEA") can only respond as to how the specific rates for PV were calculated. See response to HECO/Solar Alliance-IR-21.

2. **To the extent that the specific rates proposed on pages 4-9 of the Schedule Fit attached to Blue Planet's Opening Statement are based on feed-in tariffs in other places, please describe:**

   a. **Which FiTs are being utilized for each of the proposed FiT rates.**

   Response:

   N/A. See response to Question 1 above.

   b. **Whether the proposed FiTs are the same as those elsewhere, save use of dollars instead of Euros. Please provide the exchange rate used to make such calculations.**

   Response:

   N/A. See response to Question 1 above.

   c. **The basis for any non-exchange rate adjustments from the FiT rates elsewhere.**

   Response:

   N/A. See response to Question 1 above.

3. **Please explain why the queuing procedures in Midwest ISO are preferavble to those of other transmission organizations. Please list the essential elements of the Midwest ISO queuing procedures that you support Hawaii adopting.**

Response:

In a spirit of collaboration, SA and HSEA recommended the Midwest ISO based on the recommendation of by Zero Emissions Leasing, LLC. Please See response to HECO/Solar Alliance-IR-19 and HECO/HSEA-IR-19.

However, SA and HSEA would also recommend the California Solar Initiative Statewide Trigger Point Tracker (see, http://www.csi-trigger.com) because it is up to date and transparent.

4. **Why is 20 years the appropriate time period for FiT agreements? Provide all underlying calculations, workpapers, reports or other information supporting FiT agreements lasting 20 years**

Response:

See Response to HECO/Solar Alliance-IR-17 and HECO/HSEA-IR-17.

CERTIFICATE OF SERVICE

The foregoing Responses to Information Requests were served on the date of filing by hand delivery or electronically transmitted to the following Parties:

CATHERINE P. AWAKUNI
EXECUTIVE DIRECTOR
DEPT OF COMMERCE & CONSUMER AFFAIRS
DIVISION OF CONSUMER ADVOCACY
P.O. Box 541
Honolulu, Hawaii 96809

2 Copies
Via Hand Delivery

DEAN MATSUURA
MANAGER
REGULATORY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P.O. Box 2750
Honolulu, HI 96840-0001

Electronically transmitted

JAY IGNACIO
PRESIDENT
HAWAII ELECTRIC LIGHT COMPANY, INC.
P. O. Box 1027
Hilo, HI 96721-1027

Electronically transmitted

EDWARD L. REINHARDT
PRESIDENT
MAUI ELECTRIC COMPANY, LTD.
P. O. Box 398
Kahului, HI 96732

Electronically transmitted

THOMAS W. WILLIAMS, JR., ESQ.
PETER Y. KIKUTA, ESQ.
DAMON L. SCHMIDT, ESQ.
GOODSILL, ANDERSON QUINN & STIFEL
Alii Place, Suite 1800
1099 Alakea Street
Honolulu, Hawaii 96813

Electronically transmitted

ROD S. AOKI, ESQ.
ALCANTAR & KAHL LLP
120 Montgomery Street
Suite 2200
San Francisco, CA 94104

Electronically transmitted

MARK J. BENNETT, ESQ.
DEBORAH DAY EMERSON, ESQ.
GREGG J. KINKLEY, ESQ.
DEPARTMENT OF THE ATTORNEY GENERAL
425 Queen Street
Honolulu, Hawaii 96813
Counsel for DBEDT

Electronically transmitted

CARRIE K.S. OKINAGA, ESQ.
GORDON D. NELSON, ESQ.
DEPARTMENT OF THE CORPORATION COUNSEL
CITY AND COUNTY OF HONOLULU
530 South King Street, Room 110
Honolulu, Hawaii 96813

Electronically transmitted

LINCOLN S.T. ASHIDA, ESQ.
WILLIAM V. BRILHANTE JR., ESQ.
MICHAEL J. UDOVIC, ESQ.
DEPARTMENT OF THE CORPORATION COUNSEL
COUNTY OF HAWAII
101 Aupuni Street, Suite 325
Hilo, Hawaii 96720

Electronically transmitted

MR. HENRY Q CURTIS
MS. KAT BRADY
LIFE OF THE LAND
76 North King Street, Suite 203
Honolulu, Hawaii 96817

Electronically transmitted

MR. CARL FREEDMAN
HAIKU DESIGN & ANALYSIS
4234 Hana Highway
Haiku, Hawaii 96708

Electronically transmitted

MR. WARREN S. BOLLMEIER II
PRESIDENT
HAWAII RENEWABLE ENERGY ALLIANCE
46-040 Konane Place, #3816
Kaneohe, Hawaii 96744

Electronically transmitted

DOUGLAS A. CODIGA, ESQ.
SCHLACK ITO LOCKWOOD PIPER & ELKIND
TOPA FINANCIAL CENTER
745 Fort Street, Suite 1500
Honolulu, Hawaii 96813

Electronically transmitted

Counsel for BLUE PLANET FOUNDATION

MR. MARK DUDA — Electronically transmitted
PRESIDENT
HAWAII SOLAR ENERGY ASSOCIATION
P.O. Box 37070
Honolulu, Hawaii 96837

JOEL K. MATSUNAGA — Electronically transmitted
HAWAII BIOENERGY, LLC
737 Bishop Street, Suite 1860
Pacific Guardian Center, Mauka Tower
Honolulu, Hawaii 96813

KENT D. MORIHARA, ESQ. — Electronically transmitted
KRIS N. NAKAGAWA, ESQ.
SANDRA L. WILHIDE, ESQ.
MORIHARA LAU & FONG LLP
841 Bishop Street, Suite 400
Honolulu, Hawaii 96813
Counsel for HAWAII BIOENERGY, LLC
Counsel for MAUI LAND & PINEAPPLE COMPANY, INC.

MR. THEODORE E. ROBERTS — Electronically transmitted
SEMPRA GENERATION
101 Ash Street, HQ 12
San Diego, California 92101

MR. CLIFFORD SMITH — Electronically transmitted
MAUI LAND & PINEAPPLE COMPANY, INC.
P.O. Box 187
Kahului, Hawaii 96733

MR. ERIK KVAM — Electronically transmitted
CHIEF EXECUTIVE OFFICER
ZERO EMISSIONS LEASING LLC
2800 Woodlawn Drive, Suite 131
Honolulu, Hawaii 96822

JOHN N. REI — Electronically transmitted
SOPOGY INC.
2660 Waiwai Loop
Honolulu, Hawaii 96819

GERALD A. SUMIDA, ESQ.
TIM LUI-KWAN, ESQ.
NATHAN C. NELSON, ESQ.
CARLSMITH BALL LLP
ASB Tower, Suite 2200
1001 Bishop Street
Honolulu, Hawaii 96813
Counsel for HAWAII HOLDINGS, LLC,
dba FIRST WIND HAWAII

Electronically transmitted

MR. CHRIS MENTZEL
CHIEF EXECUTIVE OFFICER
CLEAN ENERGY MAUI LLC
619 Kupulau Drive
Kihei, Hawaii 96753

Electronically transmitted

MR. HARLAN Y. KIMURA, ESQ.
CENTRAL PACIFIC PLAZA
220 South King Street, Suite 1660
Honolulu, Hawaii 96813
Counsel for TAWHIRI POWER LLC

Electronically transmitted

SANDRA-ANN Y.H. WONG, ESQ.
ATTORNEY AT LAW, A LAW CORPORATION
1050 Bishop Street, #514
Honolulu, HI 96813
Counsel for ALEXANDER & BALDWIN, INC.,
Through its division, HAWAIIAN COMMERCIAL & SUGAR COMPANY

Electronically transmitted

DATED: Honolulu, Hawaii, 2009.

RILEY SAITO

for The Solar Alliance